Application Number 10/004,536
Responsive to Office Action mailed May 31, 2005

## AMENDMENTS TO THE CLAIMS

Claim 1 (Currently Amended):     A routing component comprising:

a first interface to communicate data with a first network interface;

a second interface to communicate data with a second network interface, wherein the first interface and the second interface are integrated within a single integrated circuit; and

an embedded memory within the integrated circuit to buffer data communicated in a first direction from the first interface to the second interface; and

a memory interface to couple the integrated circuit to an external memory for buffering data communicated in a second direction from the second interface to the first interface.

Claim 2 (Previously Presented):     The routing component of claim 1, further comprising:

a first control unit to buffer in the embedded memory data that is received from the first interface and forwarded to the second interface; and

a second control unit to buffer in the external memory data that is received from the second interface and forwarding to the first interface.

Claim 3 (Original):   The routing component of claim 2, wherein the external memory has a greater storage capacity than the embedded memory.

Claim 4 (Original):   The routing component of claim 1, wherein the first interface comprises a wide area network (WAN) interface.

Claim 5 (Original):   The routing component of claim 1, wherein the second interface comprises a switch fabric interface.

Claim 6 (Original):   The routing component of claim 5, wherein the switch fabric interface communicates crossbar data.

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Claim 7 (Previously Presented): The routing component of claim 1, wherein the routing component is implemented using a single application specific integrated circuit (ASIC).

Claim 8 (Original): The routing component of claim 1, wherein the embedded memory comprises a random access memory (RAM).

Claim 9 (Currently Amended): A network element comprising:

a first network interface to communicate data with a network;

a second network interface to communicate data with the network; and

a routing component formed in an integrated circuit, wherein the routing component has an embedded memory within the integrated circuit; and

a second memory external to the routing component,

wherein the routing component buffers data in the embedded memory that is communicated in a first direction from the first network interface to the second network interface, and

wherein the routing component buffers data in the second memory that is communicated in a second direction from the second network interface to the first network interface.

Claim 10 (Cancelled).

Claim 11 (Previously Presented): The network element of claim 9, wherein the second memory has a greater storage capacity than the embedded memory.

Claim 12 (Previously Presented): The network element of claim 9, wherein the first network interface and the second network interface comprise wide area network (WAN) interfaces.

Claim 13 (Previously Presented): The network element of claim 9, further comprising a switch fabric coupling the routing component to a second routing component.

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Claim 14 (Previously Presented): The network element of claim 13, wherein the switch fabric communicates crossbar data.

Claim 15 (Previously Presented): The network element of claim 9, wherein the routing component is implemented using an application specific integrated circuit (ASIC).

Claim 16 (Original): The network element of claim 9, wherein the embedded memory comprises a random access memory (RAM).

Claim 17 (Original): The network element of claim 9, further comprising a second router having an embedded memory to store data communicated using the second network interface.

Claim 18 (Previously Presented): An integrated circuit (IC) comprising:

a first interface to communicate data with a network;

a second interface to communicate data with the network;

an embedded memory internal to the IC to buffer data communicated in a first direction from the first interface to the second interface; and

an interface to a memory external to the IC for buffering data communicated in a second direction from the second interface to the first interface.

Claim 19 (Original): The IC of claim 18, wherein the memory external to the IC has a greater storage capacity than the embedded memory.

Claim 20 (Original): The IC of claim 18, wherein the first interface is coupled to a wide area network (WAN) interface.

Claim 21 (Original): The IC of claim 18, wherein the second interface is coupled to a switch fabric.

Claim 22 (Original): The IC of claim 21, wherein the switch fabric comprises a crossbar.

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Claim 23 (Original): The IC of claim 18, wherein the embedded memory comprises a random access memory (RAM).

Claim 24 (Previously Presented): A router comprising:

an integrated circuit (IC) comprising:

a first interface to communicate data with a network;

a second interface to communicate data with the network;

an embedded memory to buffer data communicated in a first direction from the first interface to the second interface; and

an interface to a memory external to the IC for buffering data communicated in a second direction from the second interface to the first interface.

Claim 25 (Original): The router of claim 24, wherein the memory external to the IC has a greater storage capacity than the embedded memory.

Claim 26 (Original): The router of claim 24, wherein the first interface is coupled to a wide area network (WAN) interface.

Claim 27 (Original): The router of claim 24, wherein the second interface is coupled to a switch fabric.

Claim 28 (Original): The router of claim 26, wherein the switch fabric comprises a crossbar.

Claim 29 (Original): The router of claim 24, wherein the embedded memory comprises a random access memory (RAM).

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Claim 30 (Previously Presented):     A method for communicating data using a network router, the method comprising:

 receiving inbound data from a network interface via a first routing component;

 buffering the inbound data within an embedded memory internal to the first routing component;

 forwarding the inbound data from the first routing component to a second routing component via a switch;

 receiving outbound data with the first routing component from the switch;

 buffering the outbound data within a memory external to the first routing component; and

 forwarding the outbound data to the network interface.

Claim 31 (Previously Presented):     The method of claim 30, wherein the external memory has a greater storage capacity than the embedded memory.

Claim 32 (Previously Presented):     The method of claim 30, wherein the first network interface comprises a wide area network (WAN) interface.

Claim 33 (Canceled).

Claim 34 (Previously Presented):     The method of claim 33, wherein the switch communicates crossbar data.

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Claim 35 (Previously Presented):    A routing arrangement comprising:

a crossbar arrangement;

a plurality of routing components coupled to the crossbar arrangement, at least one of the routing components comprising

a first interface to communicate data with a network;

a second interface to communicate data with the crossbar arrangement;

an embedded memory to buffer data communicated in a first direction from the first interface to the crossbar arrangement; and

an external memory interface to a memory external to the routing device for buffering data communicated in a second direction from the crossbar arrangement to the network.

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